SOV/144-58-7-11/15

A Current Stabiliser with Non-linear Electro-magnetic Element

time variations in current are not important.
There are 10 figures, 1 table and 4 Soviet references.

ASSOCIATION: Kafedra teoreticheskikh osnov elektrotekhniki Leningradskogo politekhnicheskogo instituta (Chair of Theoretical Fundamentals of Electrical Engineering, Leningrad Polytechnical Institute)

SUBMITTED: June 6, 1958

Card 7/7

A Current Stabiliser with Non-linear Electro-magnetic Element

active resistance load. The vector diagram of this circuit is given in Fig 9. Expression (16) is derived for the ratio of the power of the non-linear element to that of the receiving device and this equation is used to construct the family of curves of this ratio as a function of γ, (see Fig 10). These curves show that for a given ratio of maximum to minimum voltage on the circuit terminals there is a value of γ that it is best not to exceed. Test results are given in Table 1 for a circuit containing a non-linear element of power 5 kVAR; in this test the value of β was about 1%. It will be seen from the table that in respect of weight per active power unit and in efficiency this current stabiliser is competitive with ferro-resonance voltage stabilisers. It is accordingly recommended to use this non-linear electro-magnetic element when inertia of the stabiliser is not an important defect. For example, it can be used to stabilise the filament current of large radio valves where because of the large thermal inertia short

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deriving the equations it was assumed that the magnetic reluctance of the leakage flux was constant; this is not so, but it does not have a serious effect on the value of γ. It does, however, affect β, for which the experimental value is always greater than the calculated. Therefore, the calculated value of β does not always give sufficient information about the quality of current stabilisation. It is shown by a numerical example that when the gaps are small it is important to allow for the influence of the magnetic reluctance of the core on current stabilisation. It is then shown that the quality of current stabilisation can be improved if the armature is placed skew in the gap as shown in Fig 7. The effect of skewing the armature on the curve of current as a function of armature position will be seen from Fig 8. Skewing the armature is a fairly effective measure; for example, in one non-linear element the value of β was 2.3% and γ 140%. When the armature was skewed, for the same value of γ the value of β was only 1%.

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The case is then considered of a non-linear element used as a current stabiliser in a circuit containing only

placed in the air gap of the core. The leakage flux may be reduced and the coefficient γ increased by altering the arrangement of the coils as shown in Fig 5. With this type of non-linear element with small air gaps the coefficient γ is about 135% for a value of $\beta = 3.5\%$. Besides being influenced by the coil arrangement the leakage flux also depends on the air gap geometry, particularly on the ratio of length to depth (see Fig 5). The influence of this ratio on the performance of the device is then considered. In practice not all of the armature travel is available for current stabilisation and expression (15) gives the value of γ for a practical range of travel. It is then shown that the value of γ reaches a maximum when the ratio of the distance between the poles to the depth of the poles is about 0.5. Expression (15) was found to give values of γ in good agreement with experimental values. The accuracy of the calculation depends mainly on the accuracy of determination of the leakage factor coefficient. It is more accurate to determine this coefficient experimentally than to obtain it from the curves given in Fig 6. In

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coefficients as functions of the parameters of the non-linear element and analysis of these expressions shows that stabilisation is best when the magnetic reluctance of the core is small in comparison with the magnetic reluctance of the air gap between the poles; the coefficient β depends on the voltage range in which stabilisation is effected and the maximum value of the coefficient γ depends only on the ratio of the air gap between the poles when the armature is not in place to that when it is in place. The first type of non-linear element was made in accordance with the diagram shown in Fig 1 and was found to effect current stabilisation over only a limited range of voltage. The characteristic curve of this non-linear element is given in Fig 4, curve 1, from which it will be seen that stabilisation is effective only from the starting voltage of 90 V to about 130 V, above which stabilisation is much impaired. It is shown that the performance is not very satisfactory because the coefficient γ is small and this results from the presence of large leakage fluxes and also from distortion of the field that occurs when the armature is

A Current Stabiliser with Non-Linear Electro-magnetic Element

to move in a direction perpendicular to the air gap. Because of the inertia of the armature its position does not change during a current cycle and so, as will be seen from Eq (1), the force acting on it is a function of the r.m.s. value of the current but not of the instantaneous value. The force of attraction given by expression (1) is opposed by a restraining force, which may be assumed constant and so the armature will assume an equilibrium position for which the two forces are in balance. If the voltage applied to the non-linear element is changed the armature moves until the forces are again in equilibrium, by which time the current has returned to its original value. Non-linear elements of this kind can be designed to have different characteristics according to the change of inductance and restraining force with armature position. Two coefficients are then introduced to characterise the performance of the non-linear element: β is the ratio of the change of current during the process of stabilisation to the initial value and γ is the corresponding ratio for voltage. Eqs (6) and (7) give these

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AUTHOR: Moderov, Andrey Aleksandrovich, Aspirant SOV/144-58-7-11/15

TITLE: A Current Stabiliser with Non-Linear Electro-magnetic Element (Stabilizator toka s nelineynym elektromagnitnym elementom)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Elektromekhanika, 1958, Nr 7, pp 99-111 (USSR)

ABSTRACT: Many electrical devices supplied by a.c. employ a non-linear relationship between r.m.s. values of voltage and current in some circuit components. Such stabilisers have the disadvantage of distorting current and voltage wave shapes. This defect is not shared by inertia non-linear elements, the parameters of which do not change during a current cycle but depend on the r.m.s. value of the current. Stabilisers with inertia non-linear elements are also unaffected by changes in the frequency of supply. The electro-magnetic non-linear elements described below are of the inertia type and may be used for current or voltage stabilisation. A current stabiliser with non-linear electro-magnetic element is illustrated diagrammatically in Fig 1. It consists of a reactive coil with an open core of ferro-magnetic material between the poles of which an armature is free

Card 1/7

KONORSKIY, B., prof.; SAVYUK, V., inzh. (Krayova, Rumyniya); CHAKI, F., kand. tekhn. nauk (Budapesht, Vengriya); GRESHNYAKOV, V.M., inzh.; MODEROV, A.A., inzh.; SAPOZHNIKOV, R.A., doktor tekhn. nauk, prof.; SAPERSHTEYN, N.D., kand. fiz.-mat. nauk; BOGATYREV, O.M., kand. tekhn. nauk (Moscow).

Modification of the Heaviside formula. Elektrichestvo no.3:86-88 Mr '58. (MIRA 11:5)

1. Lodzinskiy politekhnicheskiy institut, Pol'sha (for Konorskiy). 2. Leningradskiy politekhnicheskiy institut imeni Kalinina (for Greshnyakov, Moderov). 3. Leningradskiy voyenno-mekhanicheskiy institut (for Saposhnikov, Sapershteyn).
(Electric engineering)

MODERINSKIY, N. I.,

"Geodetic and Cartographic Journals of Czechoslovakia in 1958," Izvestiya Vysshikh Uchebnykh Zavedeniy, Geodeziya i Kartografiya, No. , Moskva, 1958.

the thermostat at 40 °C ± 0.1 °C. The sensor element of the thermostat is a capillary mercury contact thermometer which controls a transistor amplifying stage whose collector operates a relay used for switching the heating current. The buffer stages are provided to eliminate the unstabilizing effect on the oscillator and the dividers of the load connected to the output terminals. The instrument is supplied from a stabilized 9 V DC source, whose input of 12 V DC is derived either from a battery or a mains-driven rectifier circuit. The instability of this source is less than 1% for mains-voltage changes of -15 to +10%. There are 7 figures.

Card 2/2

E192/E382

AUTHORS: Moder, Antonín and Sajal, Pavel, Engineers

TITLE: Frequency standard, type OTP

PERIODICAL: Sdělovací technika, no. 3, 1963, 93 - 94

TEXT: The instrument consists of the following constructional units: an oscillator operating at 100 kc/s; a thermal-control system; a frequency divider; buffer stages for frequencies of 100 kc/s, 20 kc/s, 5 kc/s and 1 kc/s and a stabilized DC supply source. The oscillator is based on a piezoelectric crystal unit of GT cut, which operates as a series resonant circuit. The crystal unit is sealed in an evacuated glass envelope provided with an octal base. The active element of the oscillator is a Czechoslovak transistor, type 156NU70. The oscillator is situated in a thermostat together with an amplifying stage inductively coupled to the oscillator. The supply for the oscillator is provided by a mercury battery, type MR 19, also situated in the thermostat. When it is necessary to change the battery the oscillator is connected to a stabilizer with a zener diode fed from a 9 V DC supply. The thermal-control system maintains the temperature of

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method of solving the problem is discussed. A waveguide system of [illegible] boundary conditions for it are derived. Convergence of the approximate solution to the exact, computational formulas for coefficients of waveguide equations, and some computational results are treated. The author acknowledges the constant interest of A. G. Sveshnikov and his supervision of the work. Orig. art. has: 42 formulas, 3 tables, and 1 figure.

SUB CODE: 12, 20, 09/ SUBM LATE: none/ ORIG REF: 009

Card 2/2

ACC NR: AT6035245 SOURCE CODE: UR/3043/66/000/005/0197/0209

AUTHOR: Modenov, V. P.

ORG: none

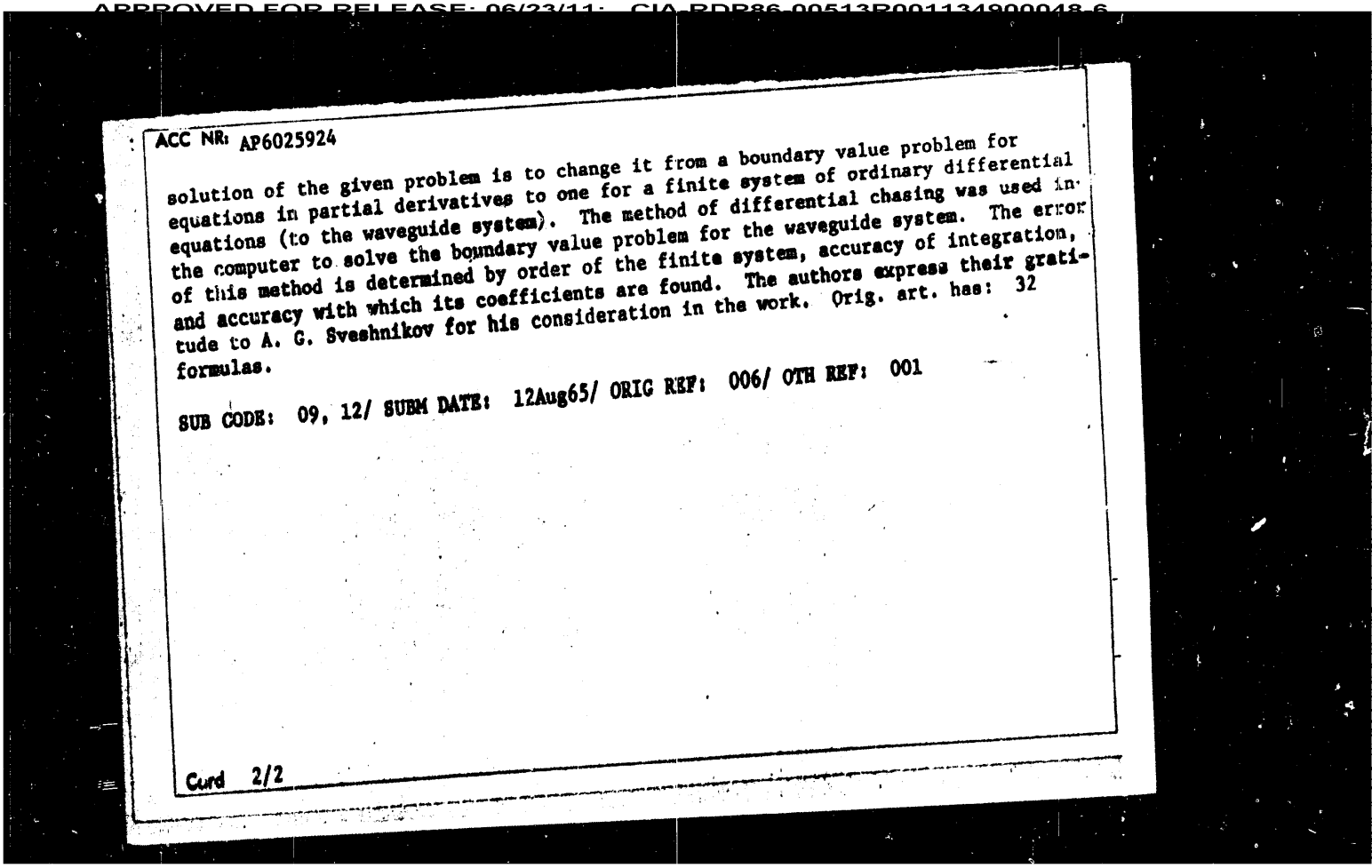
TITLE: The design of irregular waveguides with gyrotropic filling

SOURCE: Moscow. Universitet. Vychislitel'nyy tsentr. Sbornik rabot, no. 5, 1966. Vychislitel'nyye metody i programmirovaniye (Computing methods and programming), 197-209

TOPIC TAGS: waveguide, ~~design~~, irregular waveguide, gyrotropic body, approximate solution

ABSTRACT: The basic ideas of the method of designing waveguides with local gyrotropic filling have already been set forth. In particular, the method permits study of the phenomenon of electromagnetic wave reflection from a gyrotropic body of revolution of arbitrary form located axisymmetrically in a cylindrical waveguide of circular cross section (waveguide phase-shifter). The present paper aims at generalizing the method to the case of gyrotropically filled waveguides with irregular lateral surface. The general system of designing these waveguides which it sets forth makes it possible, for example, to solve the important problem of matching two round waveguides of differing diameter by means of a symmetrical adapter. The mutual influence of two irregularities (the lateral surface of the waveguide and its filling) may be studied. The design circuit may be successfully realized on modern high-speed computers. The

Card 1/2



ACC NR: AP6025924

solution of the given problem is to change it from a boundary value problem for equations in partial derivatives to one for a finite system of ordinary differential equations (to the waveguide system). The method of differential chasing was used in the computer to solve the boundary value problem for the waveguide system. The error of this method is determined by order of the finite system, accuracy of integration, and accuracy with which its coefficients are found. The authors express their gratitude to A. G. Sveshnikov for his consideration in the work. Orig. art. has: 32 formulas.

SUB CODE: 09, 12/ SUBM DATE: 12Aug65/ ORIG REF: 006/ OTH REF: 001

Card 2/2

ACC NR: AP6025924 SOURCE CODE: UR/0[illegible]/006/004/0706/0713

AUTHOR: Modenov, V. P. (Moscow); Kalinina, L. I. (Moscow)

ORG: none

TITLE: Design of a circular waveguide with variable anisotropic occupation

SOURCE: Zhurnal vychislitel'noy matematiki i matematicheskoy fiziki, v. 6, no. 4, 706-713

TOPIC TAGS: circular waveguide, differential equation solution, Maxwell equation, approximate solution

ABSTRACT: The authors attempt a methodical analysis and explanation of the nature of the computational error occurring when solving the initial waveguide problem by computer. The mathematical statement of the problem consists in determining in an irregular sector $0 \leq z \leq d$ of a variably and anisotropically occupied waveguide the solution of a Maxwell system of equations which must satisfy (1) the boundary condition of equality to zero of the tangential component of the strength of an electrical field on a lateral surface of the waveguide, (2) the conditions of conjugacy comprising continuos tangential components of the electrical and magnetic fields on the boundaries of the anisotropically occupied sector, and (3) the conditions of emission and excitation in regular sectors when there are no perpendicular waves coming from infinity except incident ones. The basic algorithm for constructing the approximate

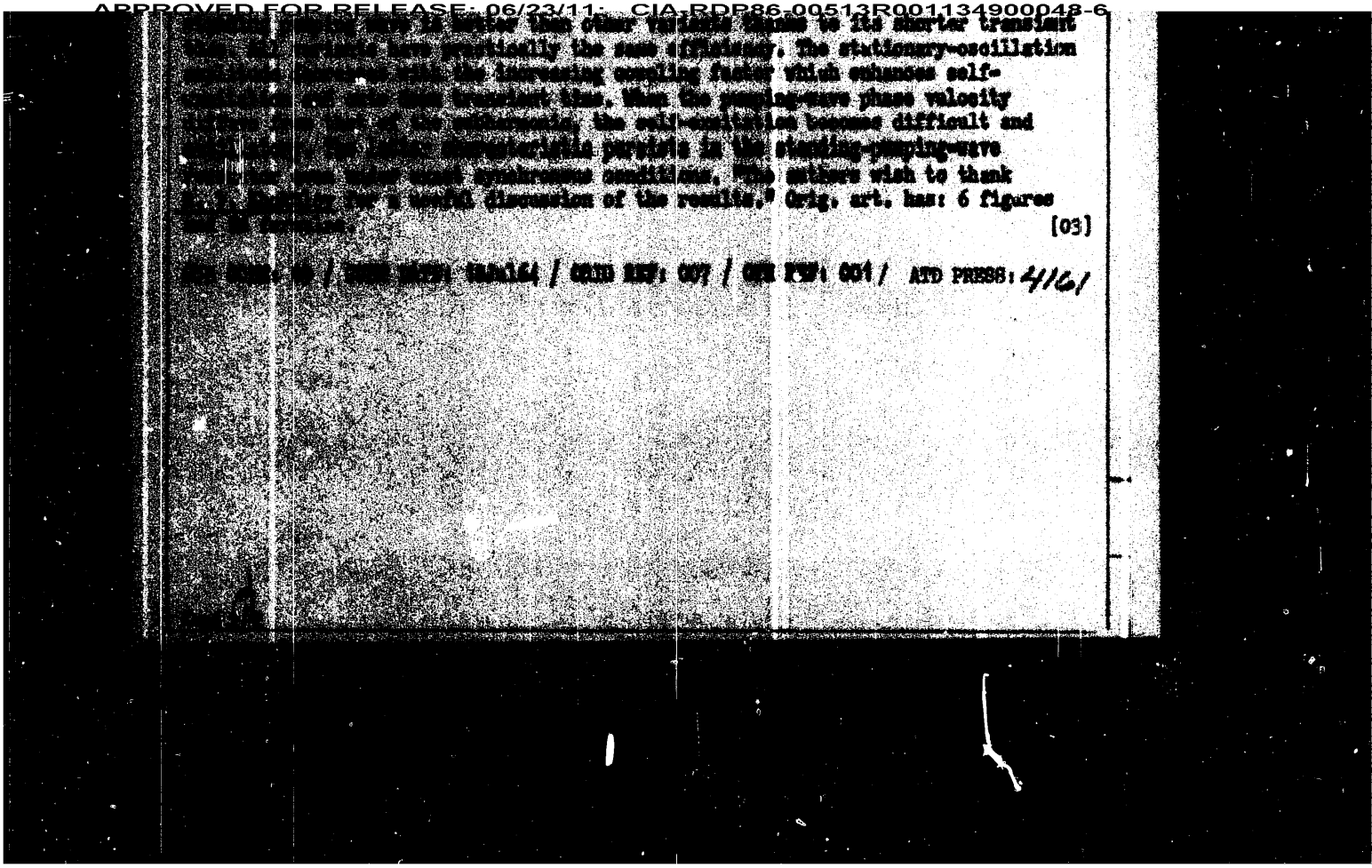
UDC: 517.9:621.372.8

Card 1/2

Ja-F '65.

Vestn. Mosk. un. Ser. 3: Fiz., astron. 20 no.1:85-86
(MIRA 18:3)

1. Kafedra radiotekhniki Moskovskogo universiteta.



[03]

ATD PRESS: 4161

AUTHOR: [illegible]; Dmitriyev, V. G.; [illegible]; Yakovlev, V. V. 27 26 B

ORG: [illegible]

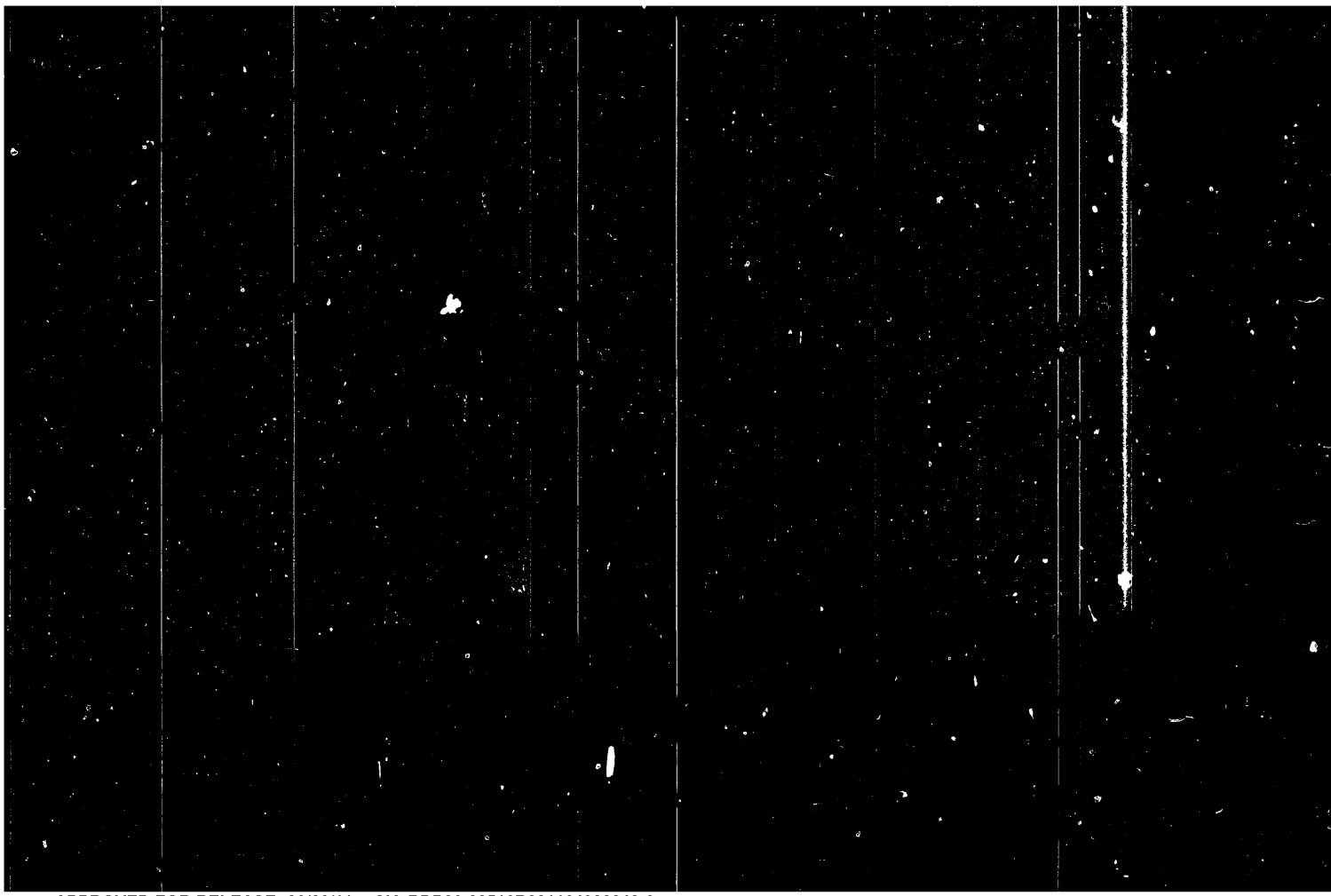
TITLE: Theory of parametric oscillation in a resonator filled with nonlinear medium

SOURCE: Radiotekhnika i elektronika, v. 10, no. 12, 1963, 2157-2166

TOPIC TAGS: [illegible], parametric oscillator

ABSTRACT: [illegible] oscillation of a single-dimensional Fabry-Perot [illegible] is considered; the [illegible]. The excitation, [illegible] as the generation of [illegible] are [illegible] while the subharmonic [illegible] wave passes [illegible] is set up in the resonator, [illegible] time, and the subharmonic [illegible]: (a) modulation [illegible] in the medium and [illegible] of the interacting [illegible] imposed on the mirrors. The resonator with a

[illegible]



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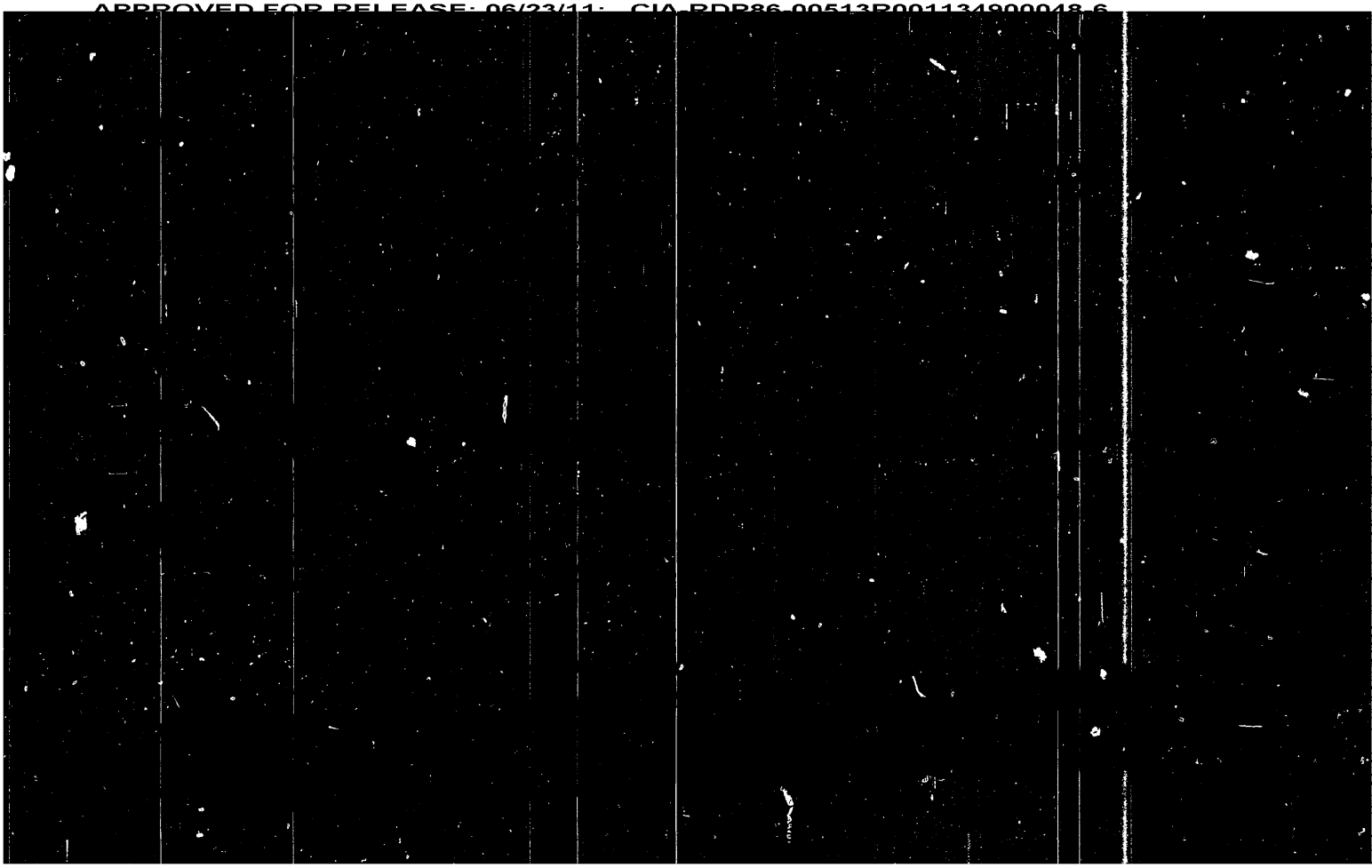

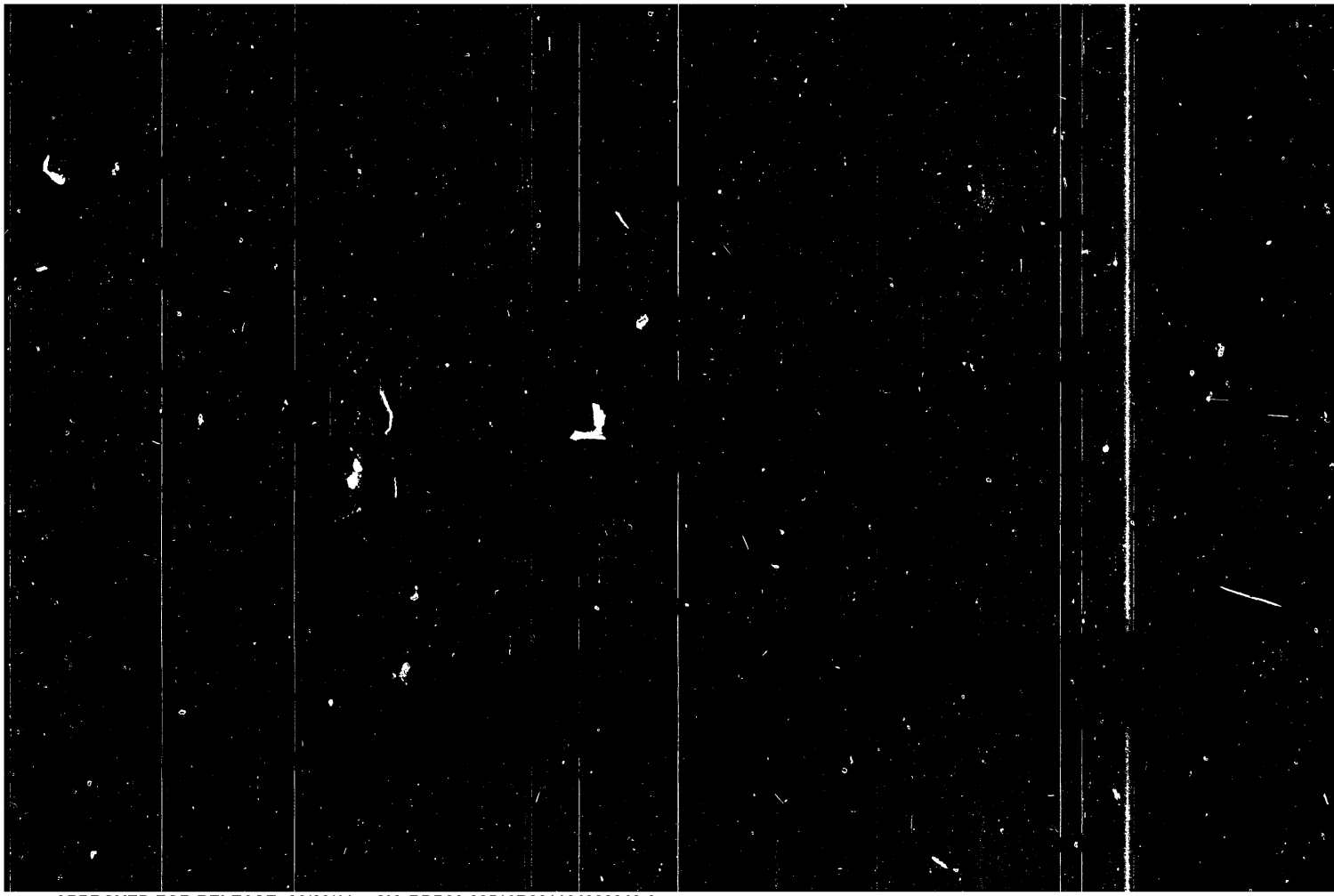

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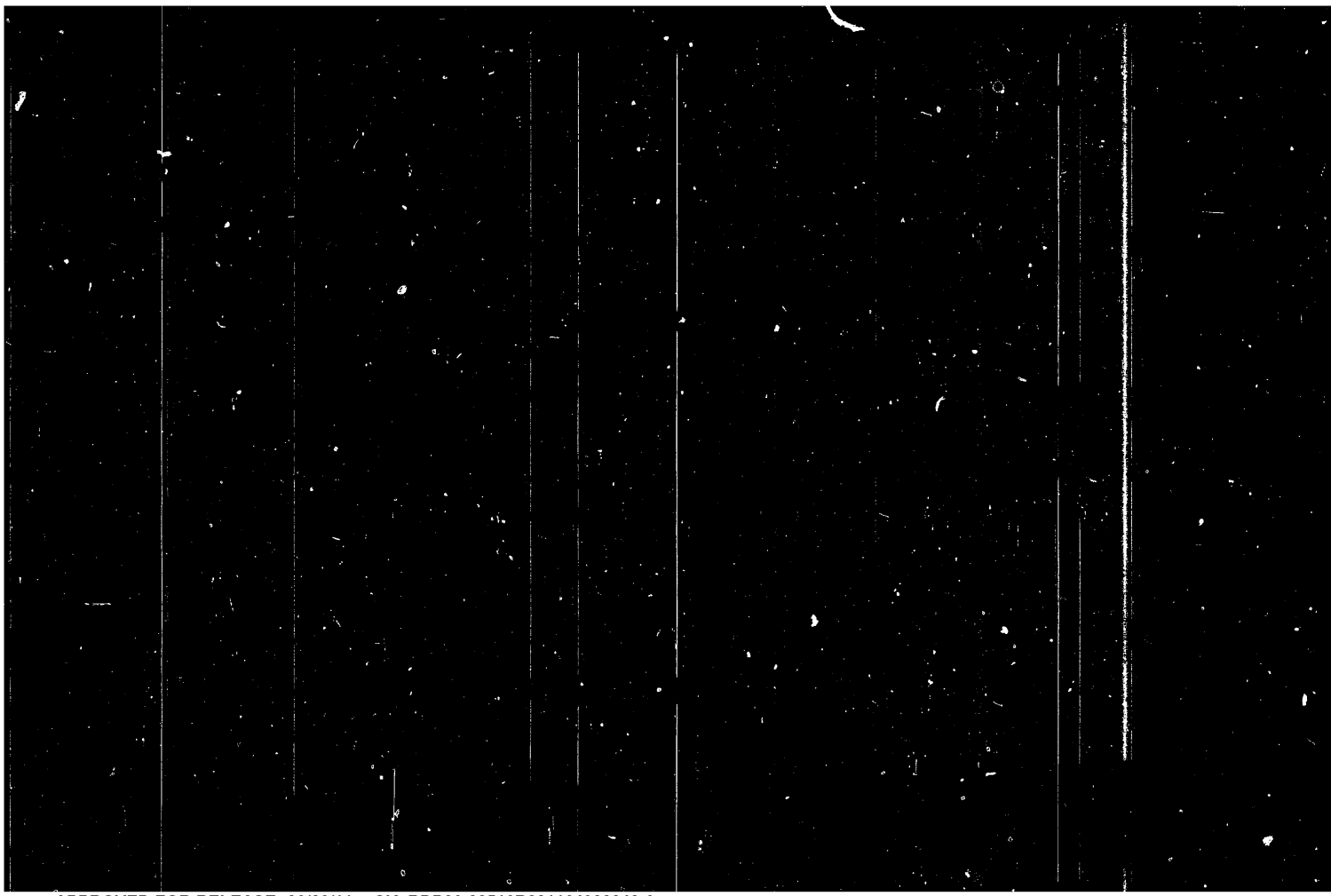

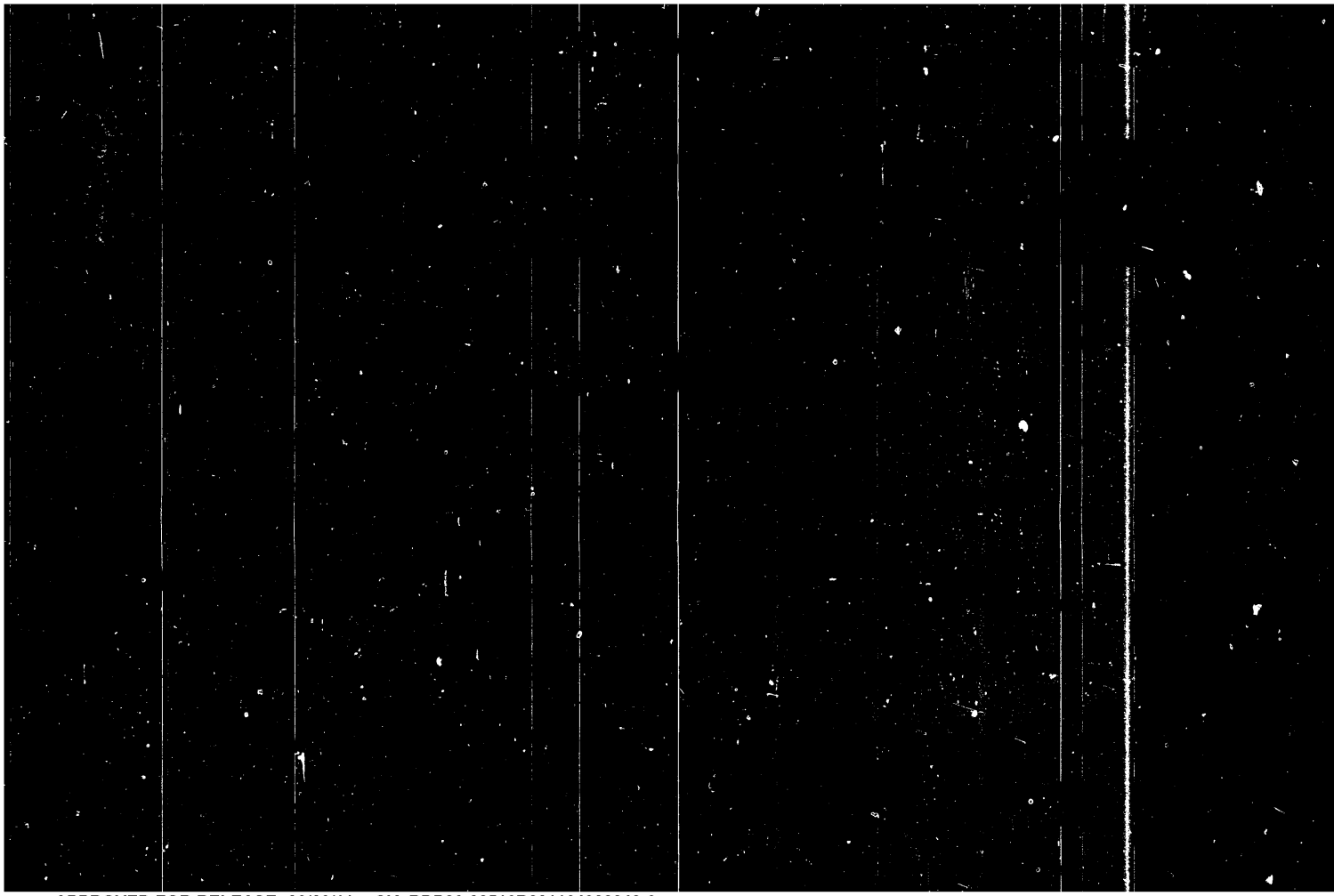

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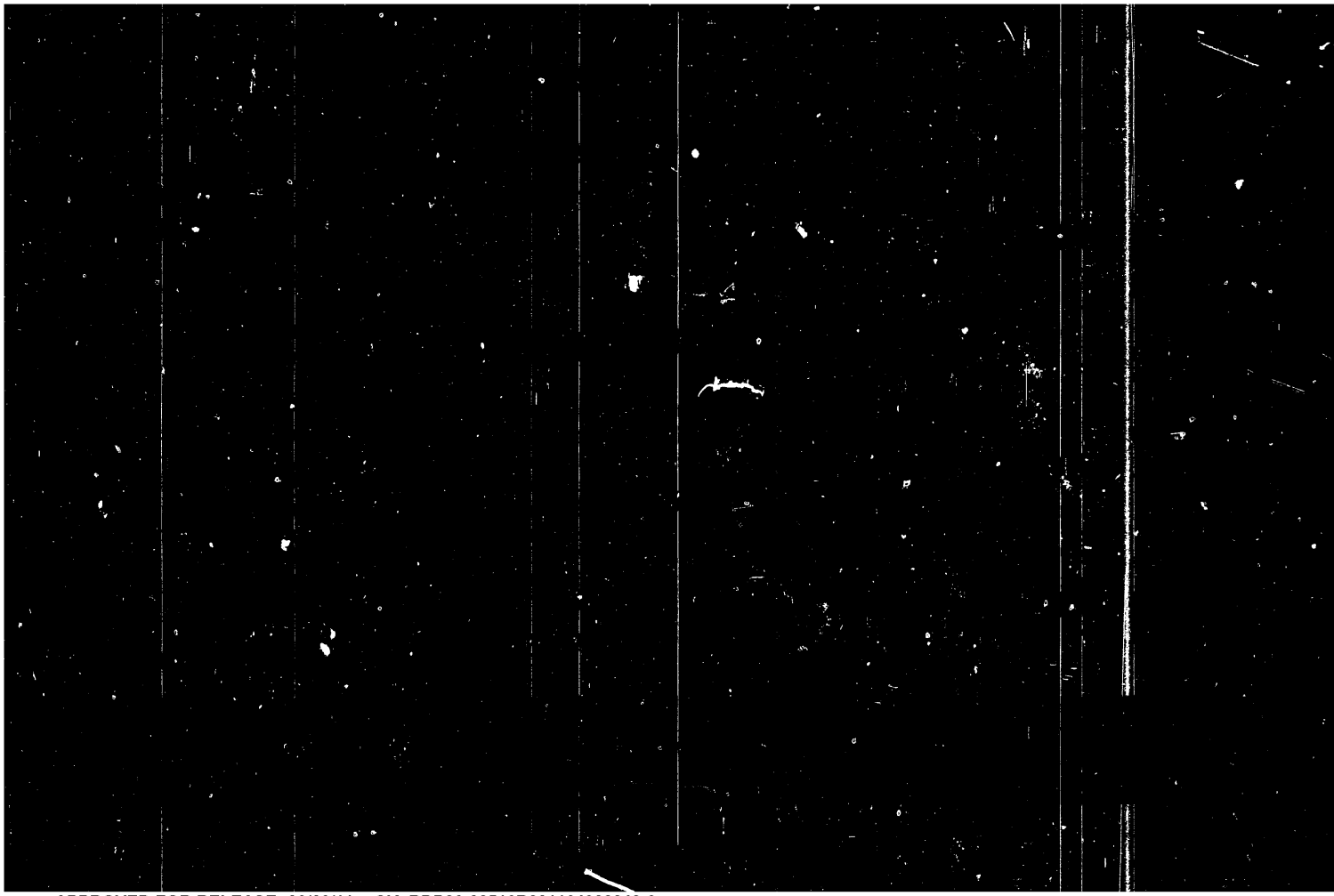

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was explored. It is found that effective frequency doubling and tripling by a nonlinear dispersive line is practically possible; the tripling conversion factor may go as high as 65%. In nonlinear optics, the use of reflections is recommended to keep down the conversion-equipment size. Orig. art. has: 4 figures and 17 formulas.

ASSOCIATION: Moskovskiy gosudarstvenny*y universitet im. M. V. Lomonosova (Moscow State University)

SUBMITTED: 19Mar63 DATE ACQ: 05Jun64 ENCL: 00

SUB CODE: EC, DP NO REF SOV: 005 OTHER: 002

ACCESSION NR: AT4034...

AUTHOR: Akhmanov, S. A.; Dmitriyev, V. G.; Modenov, V. P.

TITLE: Theory of frequency multiplication in nonlinear dispersive lines

SOURCE: Radiotekhnika i elektronika, v. 9, no. 5, 1964, 814-821

TOPIC TAGS: frequency multiplication, dispersive line, radio frequency multiplication, nonlinear optics

ABSTRACT: A theoretical investigation of the propagation of electromagnetic (radio and optical) waves in a nonlinear-reactance single-dimensional medium is reported; phase velocities of the fundamental wave and its second and third harmonics are regarded as nearly equal. The results may easily be extended over the case of a two-dimensional medium. The differential equations involved were numerically integrated on a "Strela" digital computer; the effects of the modulation factor, dispersion, and attenuation on the generation of harmonics

Card 1/2

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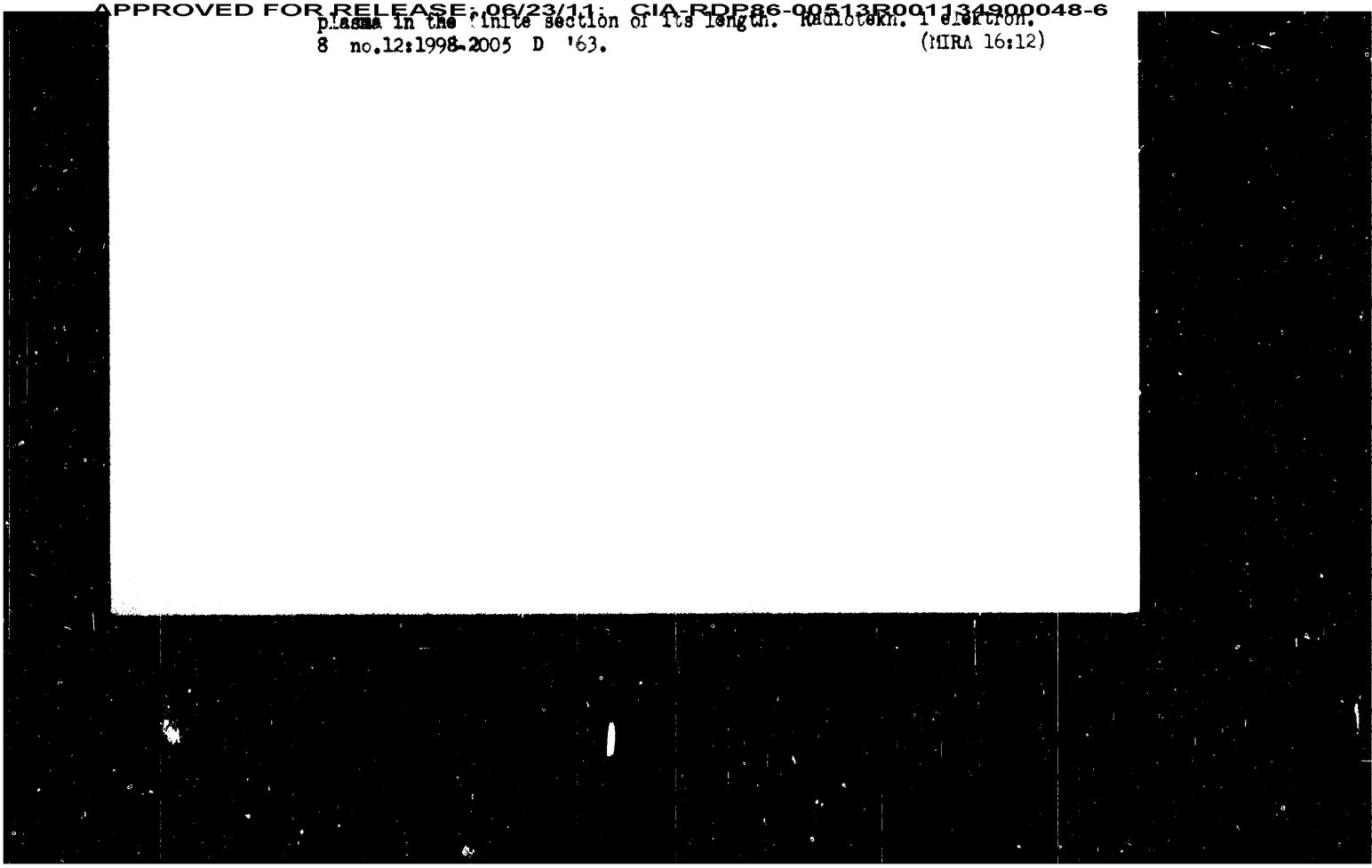

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[Problems in analytic geometry] Sbornik zadach po analiticheskoi geometrii. Izd.3., perer. Moskva, Nauka, 1964. 440 p. (MIRA 17:10)

MODENOV, Petr Sergeyevich; NOVOSELOV, Sergey Iosifovich; KAPUSTINA, V.S., red.; YERMAKOV, M.S., tekhn. red.

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MODENOV, P.S. (Moskva)

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Mat. v shkole no.2:77-84 Mr-Ap '61. (MIRA 14:4)
(France--Mathematics--Periodicals)

MODENOV, Petr Sergeyevich; NOVOSELOV, Sergey Iosifovich; KAPUSTINA, V.S., red.; YEMMAKOV, M.S., tekhn. red.

[Textbook on mathematics for students entering institutes of higher education] Posobie po matematike dlia postupaiushchikh v vuzy. Moskva, Izd-vo Mosk. univ., 1961. 406 p. (MIRA 14:6)
(Mathematics)

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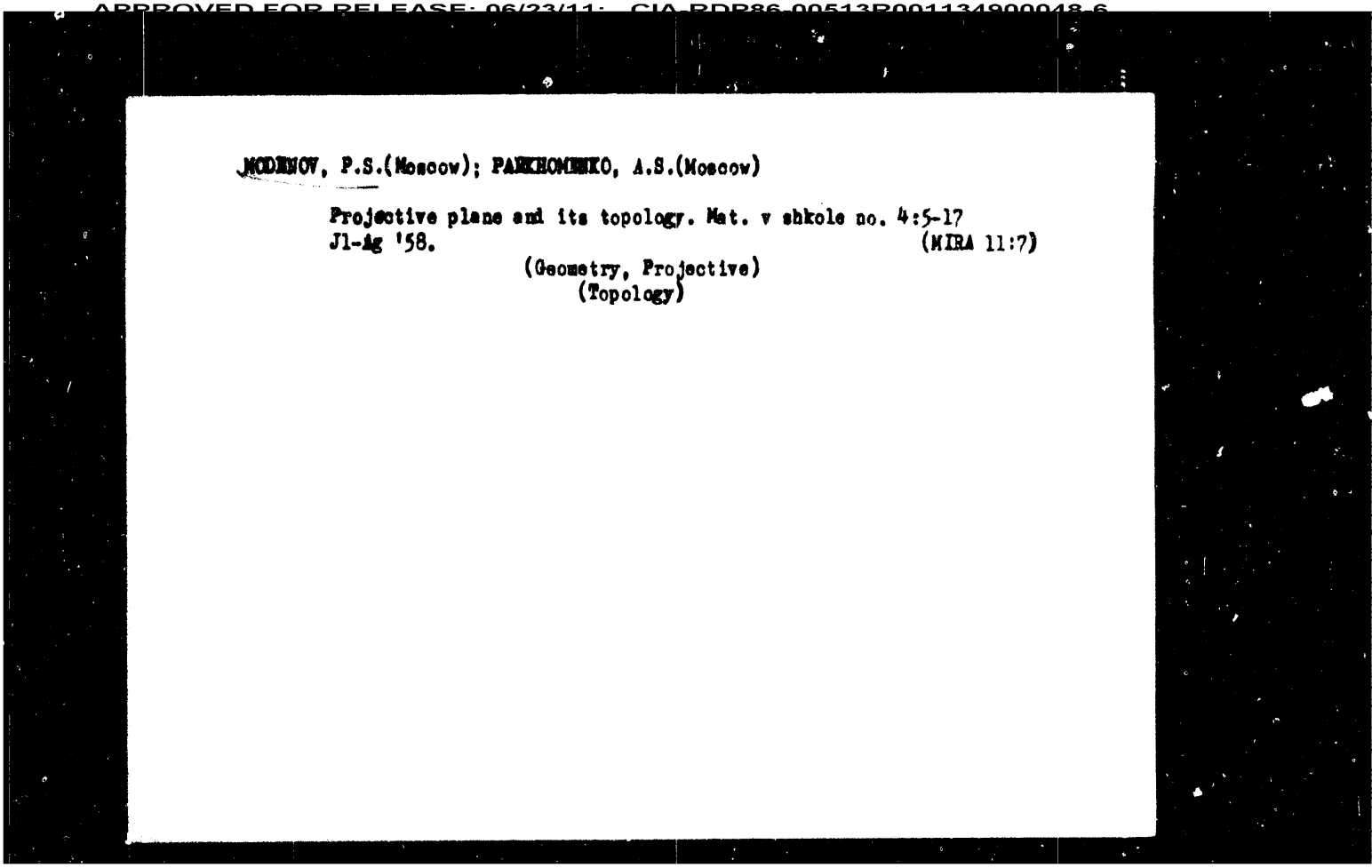
MODENOV, Petr Sergeyevich; PARKHOMENKO, Aleksey Serapionovich; KAPUSTINA, V.S., red.; YERMAKOV, M.S., tekhn. red.

[Geometrical transformations] Geometricheskie preobrazovaniia. Moskva, Izd-vo Mosk. univ., 1961. 230 p. (MIRA 15:2)
(Geometry, Projective)

MOLCHOV, Petr Sergeyevich; NOVOSELOV, S.I., red.; SHAROVA, Ye.A., red.; [illegible], S.S., tekhn.red.

[Collection of problems in a special course of elementary mathematics] Sbornik zadach po spetsial'nomu kursu elementarnoi matematiki. Izd.2., dop. i ispr. Moskva, Gos.izd-vo "Vysshaia shkola," 1960. 766 p. (MIRA 14:4)
(Mathematics--Problems, exercises, etc.)



MODENOV, P.S.(Moscow); PARKHOMENKO, A.S.(Moscow)

Projective plane and its topology. Mat. v shkole no. 4:5-17 Jl-Ag '58. (MIRA 11:7)

(Geometry, Projective)
(Topology)

MODENOV, PETR SERGEYEVICH

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[A collection of proglems for a sepcial course in elementary mathematics] Sbornik zadach po spetsial'nomu kursu elementarnoi matematiki. Moskva, Gos.izd-vo "Sovetskaia nauk," 1957. 666 p. (MIRA 11:2)

(Mathematics--Problems, exercises, etc.)

MODENOV, PETR SERGEYEVICH

BAKHVALOV, Sergey Vladimirovich, MODENOV, Petr Sergeyevich; PARKHOMENKO, Aleksey Serapionovich; TSVETKOV, A.T., redaktor; GAVRILOV, S.S., tekhnicheskiy redaktor

[Collection of problems in analytic geometry] Sbornik zadach po analiticheskoi geometrii. Izd. 2-oe, perer. Moskva, Gos. izd-vo tekhniko-teoret.lit-ry, 1957. 384 p. (MLRA 10:10)
(Geometry, Analytic--Problems, exercises, etc.)

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(Geometry, Analytic)

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7487. MODENOV, P. S. Metodicheskiye ukazaniya k programme po kursu "Analiticheskaya geometriya." Dlya studentov-zaochnikov i kursa fiz.-matem. fak. ped. in-tov. M. Uchpedgiz, 1954. 110 s. s. chert. 20sm. (Glav. upr. podgotovki uchiteley m-va prosveshcheniya rsfsr. nauch.-metod. kabinet po zaoch. Obucheniyu uchitey). 10,000 EKZ. 1r. 25k.- (55-4108) 516 (071.4)

So. Knizhnaya letopis', Vol. 7, 1955

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(MLRA 6:6)
(Equations)

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[Problems in mathematics] Sbornik zadach po matematike. Izd. 4-3. Moskva, Sovetskaia nauka, 1953. 384 p.

SO: Monthly List of Russian Accessions, Vol 6 No 6 September 1953

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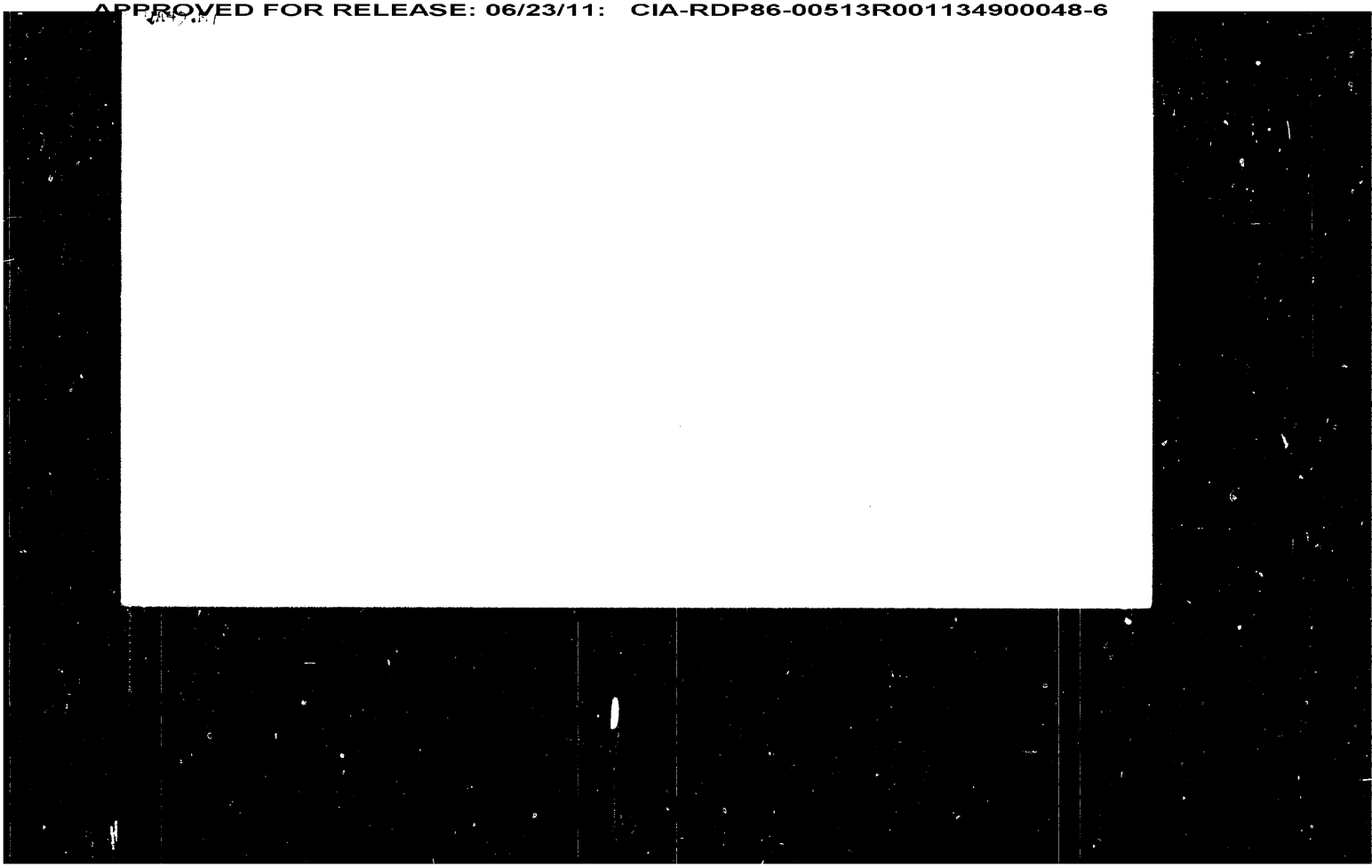

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9. [redacted] Report U- 3081, 16 Jan. 1953, Unclassified.

MODELSKI, Wojciech

Fracture of the pelvis -- an urological problem. Pol. przegl. chir. 37 no.3:248-256 Mr '65.

1. Z Kliniki Urologicznej Akademii Medycznej w Krakowie (Kierownik: prof. dr. H. Michalowski).

MICHALOWSKI, Kmil; MODELSKI, Wojciech

Suction drainage in urological surgery. Polski przegl. chir. 34 no.6a: 543-545 '62.

1. Z Oddzialu Urologicznego AM w Krakowie Kierownik: prof. dr E. Michalowski.

(UROLOGY surg) (DRAINAGE)

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MICHALOWSKI, E.; MODELSKI, W.

On the surgical treatment of male epispadias. Acta chir. plast. 4 no.4:326-328 '62.

1. Urologische Abteilung des Klinischen Krankenhauses, Krakow (Polen) Vorstand: Prof. Dr. E. Michalowski.
(EPISPADIAS)

MODELSKI, Wojciech

Lithiasis of the ureter after Coffey's operation. Polski przegl. chir. 33 no.3:279-281 '61.

1. Z Oddzialu Urologicznego Panstwowego Szpitala Klinicznego w Krakowie Kierownik: prof. dr E. Michalowski.

(URINARY CALCULI case reports) (URETERS surg)

FROMOWICZ, Kurt Karol; MIKULOWSKI, Pawel; MODELSKI, Wojciech; URBANCZYK, Jan

Critical evaluation of diagnostic methods in amyloidosis in the light of bioptic studies of the renal parenchyma. Polskie arch. med. wewn. 31 no.12:1575-1583 '61.

1. Z III Kliniki Chorob Wewnetrznych AM w Krakowie Kierownik: prof. dr med. J.Aleksandrowicz i z Zakladu Anatomii Patologicznej AM w Krakowie Kierownik: prof. dr med. J.Kowalczykowa.
(AMYLOIDOSIS pathol) (KIDNEY pathol) (BIOPSY)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

MIKHALOVSKIY, Ye.; MODEL'SKIY, V.

Operative methods in the treatment of hypospadias. Urologiia no.4:32-33 '61. (MIRA 14:11)

1. Iz urologicheskogo otdeleniya (zav. - prof. Ye. Mikhalovskiy) Krakovskoy meditsinskoy akademii.
(URETHRA--ABNORMITIES AND DEFORMITIES)

MODELSKI, Wojciech

Transposition of the accessory vessel and plication of the kidney pelvis. Polski przegl. chir. 32 no.11:1125-1129 '60.

1. Z Oddzialu Urologicznego P.S.K. w Krakowie Kierownik: prof. dr K. Michalowski.

(HYDRONEPHROSIS surg)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

MICHALOWSKI, Emil; MOSKALSKI, Wojciech

Partial excision of the kidney. Polski przegl. chir. 32 no.5: 453-458 My '60.

1. Z Oddziału Urologicznego P. S. K. A. M. w Krakowie, Ordynator: prof. dr. E. Michalowski.
(NEPHRECTOMY)

GEBALA, A.; ACKERMANN, Jadwiga; NODELSKI, W.

A case of true hermaphroditism. Folia biol 8 no.4:299-316 '60.
(EEAI 10:6)

1. Pediatrical Clinic, Medical Academy, Krakow. Head: T.Gisa, M.D. Department of Histology, Medical Academy, Krakow. Head Jadwiga Ackerman, Ph.D. Urological Department, Medical Academy, Krakow. Head: E.Michalowski, M.D.
(HERMAPHRODITISM)

MODELSKI, Wojciech

Fracture of the penis and their therapy. Polski przegl. chir. 31 no.10:1113-1118 Oct 59.

1. Z Oddzialu Urologicznego P. S. K. A. M. w Krakowie Kierownik: prof. dr E. Michalowski
(PENIS, wds. & inj.)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

MODELSKI, Wojciech

[redacted] foreign body in the bladder. Polski przegl. chir. 30 no.1:55-56 Jan 58

1. Z Oddzialu Urologicznego P.S.K. w Krakowie. Kierownik: prof. Emil Michalowski.

(BLADDER, foreing bodies
stick introduced into anus by ment. patient, removal (Pol))

MODNISKI, M.

Diagnostic renal puncture in cases of hydronephrosis. Polski przegl. radiol. 22 no.4:241-243 July-Aug 58.

1. Z Oddzialu Urologicznego P. S. K. w Krakowie Ordynator prof. dr. M. Michalowski.

(HYDRONEPHROSIS, diag.
renal puncture, indic. & case reports (Pol))

3392. PRODUCTION OF A SUBSTITUTE BLADDER FROM THE RECTUM - W sprawie wytwarzania pęcherza zastępczego z prostnicy - Modelski W. Odd. Urol. PSK, Kraków - UROL. POL. 1958, 12 (43-48) Illus. 4

Three cases of the urinary bladder extrophy are presented, in which bilateral ureterorectal anastomosis and perineal sigmoidostomy were performed. The functional results obtained are satisfactory. Humoral disturbances were not observed.

MODELSKI, W.

Treatment of unhealed suprapubic fistula after prostatectomy.
Polski przegl. chir. 29 no.1:33-37 Jan 57.

1. Z Oddzialu Urologicznego P.S.K. A.M. w Krakowie
Kierownik: prof. dr. Michalowski. Adres autora: Krakow, ul.
Grzegorzecka 18.

(PROSTATE, surg.
prostatectomy causing fistula of urinary tract, surg.
(Pol))
(URINARY TRACT, fistula
caused by prostatectomy, surg. (Pol))

MODELSKI, Wojciech

Paraffin calculi of the bladder. Polski przegl. chir. 28 no.11:1139-1142 Nov 56.

1. Z Oddzialu Urologicznego P.S.K.A.M. w Krakowie, Kierownik: prof. dr. E. Michalowski. Krakow, ul. Krowoderska 26.
(BLADDER, calculi
paraffin calculi, ther. (Pol))

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

MODELSKI, Wojciech; KLESYK, Barbara

Case of primary endometriosis of the urinary bladder. Gin. polska 28 no.5:593-597 Sept-Oct 56.

1. Z Oddzialu Urologicznego Panstwowego Szpitala Klinicznego A.M. w Krakowie. Ordynator: prof. dr. E. Michalowski Z Oddzialu Ginekologicznego Panstwowego Szpitala Klinicznego A.M. w Krakowie Ordynator: prymariusz dr. A. Konstantynowicz, Wojciech Modelski-Krakow, ul. Krowoderska 26.

(BLADDER, diseases
endometriosis vesicae with kidney abnorm., surg. (Pol))
(ENDOMETRIOSIS, surgery
vesicae with kidney abnorm. (Pol))
(KIDNEYS, abnormalities
crossed dystopia of left kidney, with endometriosis vesicae, surg. (Pol))

KLESYK, Barbara; MODELSKI, Wojciech

Rupture of dermoid cyst into urinary bladder. Gin. polska 28 no. 5:567-570 Sept-Oct 56.

1. Z Oddzialu Ginekologicznego P.S.K. w Krakowie, Ordynator: dr. A. Konstantynowicz, i z Oddzialu Urologicznego P.S.K. w Krakowie Ordynator: prof. dr. E. Michalowski, dr. Wojciech Modelski-- Krakow, Krowoderska 26 m. 10.

(BLADDER, neoplasms
dermoid cyst, rupt. into bladder, surg. (Pol))
(TERATOMA
bladder, cystic, rupt. into bladder, surg. (Pol))

MICHALOWSKI, Emil; MODELSKI, Wojciech

Subcapsular nephrectomy with the use of a loop instrument.
Polski przegl. chir. 28 no.2:189-194 Feb 56.

1. Z Oddzialu Urologicznego Panst. Szpitala Klinicznego w Krakowie. Ord.: doc. dr. E. Michalowski Krakow, ul. Grzegorzecka 18.

(KIDNEYS, surg.
nephrectomy, subcapsular, use of loop instrument.
(SURGERY, OPERATIVE, appar. and instruments
loop instrument for subcapsular nephrectomy.

MODELSKI, Wojciech

Repair of ureters with ileal loop in a case of bilateral ureterovaginal fistula (ureteroileocystoplasty). Urol. polska 10:184-188 1956.

1. Z Oddziału Urologicznego PSK A. M. w Krakowie. Kierownik: prof. dr med. Emil Michalowski.

(URETERS, fistula
ureterovaginal, surg., ureteroileocystoplasty (Pol))
(VAGINA, fistula
same)

MODELSKI, W.

MICHALOWSKI, E.; MODELSKI, W.

Operative therapy of hydronephrosis due to obstruction of uretero-pelvic junction. Postępy chir. 3:85-108 1956.

1. Z Oddziału Urologicznego Szpitala A.M. w Krakowie Ordynator prof. dr. med. E. Michalowski.

(HYDRONEPHROSIS, etiol. & pathogen.
obstruct. of uretero-pelvic junction, surg., technics (Pol))
(URETERS, dis.
obstruct. of uretero-pelvic junction causing hydronephrosis, surg. & technics (Pol))
(KIDNEY PELVIS, dis.
same)

MODRZEWSKI, W.

The behaviour of ovaries in experimental avitaminosis C. Polski tygod. lek. 7 no. 37:1117-1121 15 Sept 1952. (CIML 23:5)

1. Of the Institute of General and Experimental Pathology (Head--Prof. Bronislaw Giedoss, M. D. of Krakow Medical Academy.

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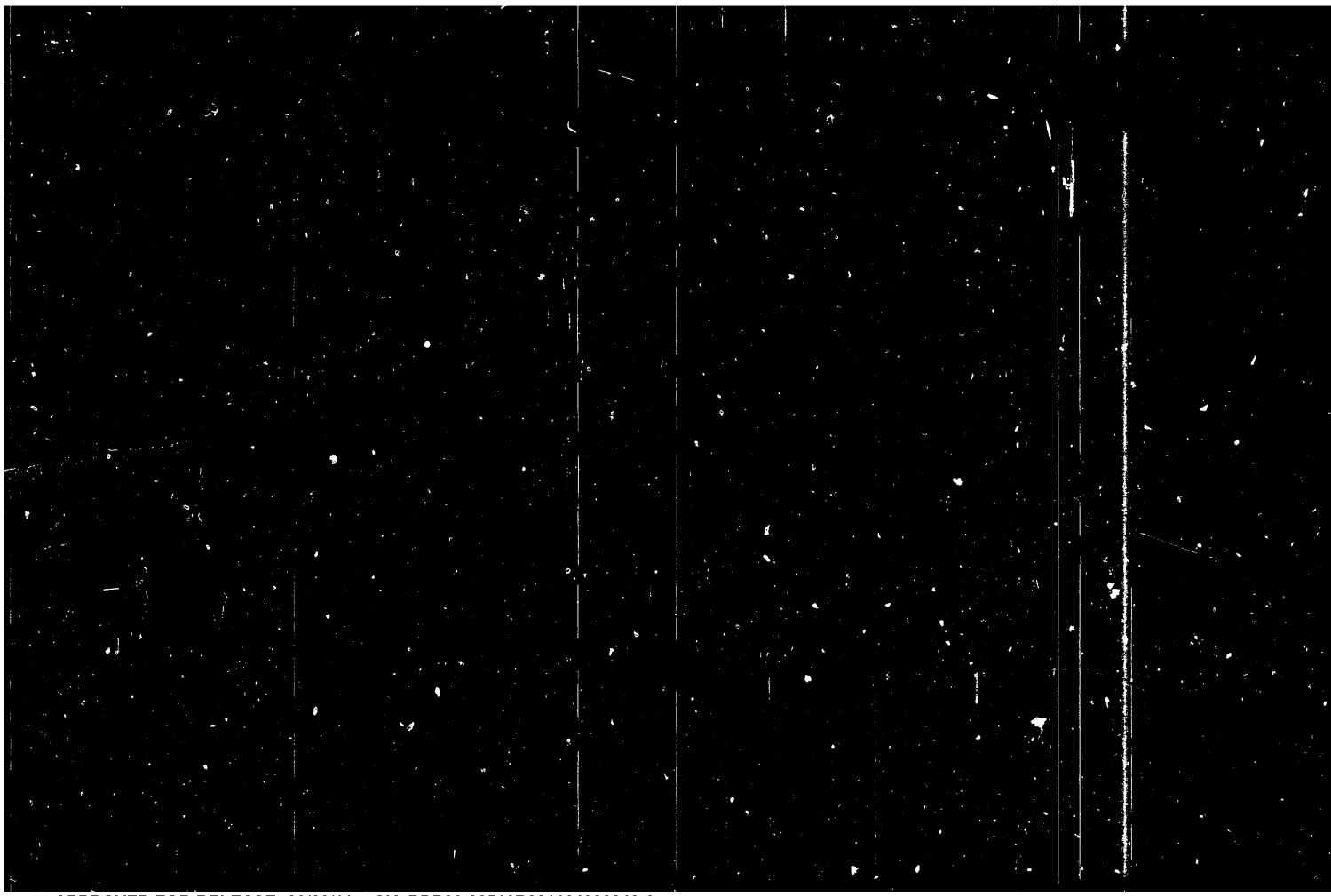

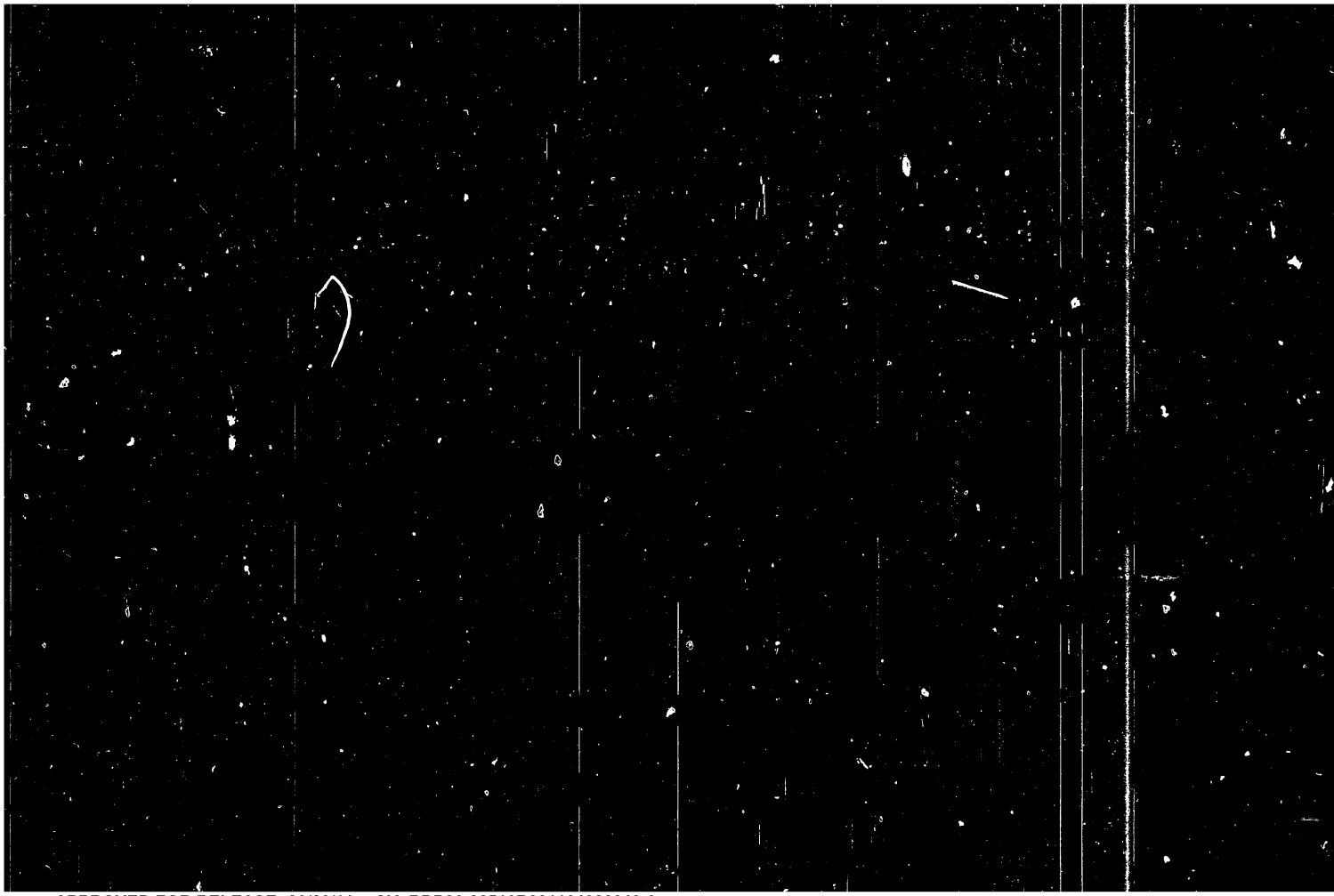

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

KREMS, A.Ya.; MATVIYEVSKAYA, N.D.; MODELEVSKIY, M.Sh.

Recent data on the structure and oil and gas potential of the Timan-Pechora area. Geol. nefti i gaza 8 no.11:1-7 N '64.
(MIRA 17:12)

1. Ukhtinskoye territorial'noye geologicheskoye upravleniye.

KREMS, A.Ya.; MISHAKOV, V.N.; MOLELEVSKIY, M.Sh.; KERYUSHKINA, A.A.; YUDIN, Ye.Ya.

Ukhta petroleum. Neft. khoz. 42 no.9/10:80-84 S-O '64.
(MCRA 17:12)

VASSERMAN, B.Ya.; MODELEVSKIY, M.Sh.

Relation of the oil potential of the structures in the southern part of the Pechora depression to the time of their formation. Neftegaz. geol. i geofiz. no.9:15-20 '64.

(MIRA 17:11)

1. Trest Voyvozhneftegazrazvedka.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

VASIL'YEV, V.G.; YEROFEYEV, N.S.; ANIKEYEVA, I.B.; YELIN, N.D.; YELOVNIKOV, S.I.; KOLOTUSHKINA, A.F.; L'VOV, M.S.; MATVIYEVSKAYA, N.D.; MIKONCHEV, Yu.P.; MODELEVSKIY, M.Sh.; MURATOVA, A.T.; MUSTAFINOV, R.A.; ROZHKOV, E.L.; SNEGIREVA, O.V.; STAROSEL'SKIY, V.I.; SYTNIK, N.A.; NEVEL'SHTEYN, V.I., ved. red.; YASHCHURZHINSKAYA, A.B., tekhn. red.

[Prospecting for gas fields in the U.S.S.R. during four years of the seven-year plant] Poiski i razvedka gazovykh mestorozhdenii v SSSR za chetyre goda semiletki. Leningrad, Gostoptekhizdat, 1963. 171 p. (MIRA 16:8)
(Gas, Natural--Geology)

MODELEVSKIY, M.Sh.; STEKOL'NIKOVA, V.A.; KHARLAMOV, S.Ya.

Results of a study of the transition zone of the producing layers of the Western Tebuk field. Neftegaz. geol. i geofiz. no.10:47-50 '63. (MIRA 17:9)

1. Ukhtinskaya geofizicheskaya kontora.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

BOGATSKIY, V.I.; VASSERMAN, B.Ya.; MOSELEVSKIY, M.S.

Recent data on the gas potential of the southern part of the upper Pechora depression. Gaz. prom. 8 no.8:1-4 '63.
(MIRA 17:11)

MODELEVSKIY, M. Sh.

Types of oil and gas pools in the southern sector of the Timan-Pechora Basin. Neftegaz, geol. i geofiz. no.4:34-36 '63 (MIRA 17:7)

1. Ukhtinskaya geofizicheskaya kontora.

MAKSIMOV, P.N.; MODELEVSKIY, M.Sh.; LIKHOLATNIKOV, V.M.

Assuring producible oil reserves. Geol. nefti i gaza 5 no.4:22-26 Ap '61. (MIRA 14:4)

1. Ukhtinskiy neftyanoy kombinat.
(Petroleum geology)

1. Trest Voyvozhneftegazrazvedka.
(Logging (Geology))

nauk; KERIMBEKOV, B.K.; KOROTEYEVA, L.V.; LISIKHIN, I.A.; MODELEVSKIY, B.Sh.; MUNAYTBASOVA, G.A.; SHAPIRO, D.M., kand.med.nauk; CHUMINA, L.N.

Materials of the expedition for the study of tuberculosis in Kzyl-Orda Province of the Kazakhs S.S.R. Probl. tub. 42 no.8:9-15 '64. (MIRA 18:12)

1. Otdel epidemiologii tuberkuleza (zav. - kand.med.nauk Ye.A. Blagodarnyy) Kazakhskogo instituta krayevoy patologii (direktor - kand.med.nauk B.A.Atchabarov) AMN SSSR, Alma-Ata, i otdel epidemiologii i organizatsii bor'by s tuberkulezom (zav. - prof. S.V.Massino) TSentral'nogo instituta tuberkuleza (direktor - deystvitel'nyy chlen AMN SSSR prof. N.A.Shmelev) Ministerstva zdravookhraneniya SSSR, Moskva.

MODELEVICH, D.M.

N.V.Kalakutskii's unpublished letter to D.K.Chernov. Lit.proizv. no.11:46-47 N '61. (MIRA 14:10)
(Steel--Metallography) (Phase rule and equilibrium)
(Kalakutskii, N.V.) (Chernov, D.K.)

MODELEVICH, D.M.

History of the bessemer blow and the use of bessemer steel in Russia, for shaped castings. Lit. proizv. no.3:42-44 Mr '61.
(MIRA 14:6)

(Founding)
(Bessemer process)

MODELEVICH, D.M., inzhener

Founding as a separate industry in precapitalist and capitalist Russia. Trudy LIEI no.31:124-132 '60. (MIRA 13:10)
(Founding)

MOISEYEVICH, D.M. (Leningrad)

Mining Engineer A.F. Mevius, author of the first Russian manual on foundry production. Vop.ist.est.i tekh. no.9:157-158 '60.
(MIRA 13:7)
(Mevius, Apollon Fedorovich, 1820-1898)
(Founding)

18(5)
AUTHOR: Modelevich, D.M., Engineer

SOV/128-59-4-24/27

TITLE: Russian Cupolas at the End of the 18th and the Beginning of the 19th Centuries

PERIODICAL: Liteynoye Proizvodstvo, 1959, Nr 4, pp 42-47 (USSR)

ABSTRACT: This is a detailed survey of Russia's cast iron industry and production at the close of the 18th and the beginning of the 19th centuries. There are 6 diagrams, 3 tables and 27 references, 5 of which are German and 22 Soviet.

Card 1/1

MODELEVICH, D.M.

AUTHOR: Modelevich, D.M., Engineer, 128-58-5-15/16

TITLE: A.S. Lavrov and Non-Ferrous Casting Alloys (A.S. Lavrov i liteynyye tsvetnyye splavy)

PERIODICAL: Liteynoye Proizvodstvo, 1958, Nr 5, pp 31-32 (USSR)

ABSTRACT: This article is written on the occasion of the 120th anniversary of the birth of the Russian metallurgist A.S. Lavrov, pioneer of foundry science. His works on non-ferrous metals are listed.
There are 21 references, 20 of which are Russian and 1 English.

AVAILABLE: Library of Congress

Card 1/1

USSR/Metals - Cast Iron, Structures Mar 52

"On the Internal Pressure Caused by Graphitization in Magnesium Cast Iron," D. M. Modelevich, Engr, "Russkiy Dizel'" Plant

"Litey Proizvod" No 3, pp 23-27

Reviews properties of cast iron, treated with Mg, on the basis of works by Soviet investigators. Discusses spheriodizing and grain refining effect of Mg, mech properties of Mg-treated cast iron and their insignificant dependence on C content. Explains typical features of cast iron with spheroidized graphite by considerable int pressure induced by graphitization.

213T93

reception. J.P. Costas asserts that two-band systems yield better results with regard to long-distance propagation. The authors contest this view. With regard to the influence of noises on signal reception, two-band systems are inferior (this is also opposed to Costas's conclusions). Finally, two-band systems and single-band systems are compared (in brief) with regard to band-width, multichannel operation and the use of AM-equipment in the transitional period. In most fields of communications, two-band systems cannot compete with single-band systems. Exceptions are: a) peripheral communications, b) television, c) those cases in which single-band communications are impossible without pilot signals (such as lowering of frequency stability, influence of Doppler effect, etc.). There are 9 figures. The most important English-language reference reads as follows: J.P. Costas, PIRE, no.4, 1957.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Society of Radio Engineering and Electrical Communications imeni A.S. Popov).

SUBMITTED: October 30, 1961

Card 3/3

is more advantageous than anode modulation. c) Combined signal-modulation: amplitude modulation of the terminal cascade and balanced modulation of one of the low-power cascades. Such a design yields greatest tube-efficiency. With regard to the preservation of the form of the modulated signal, the two-band transmitter is more advantageous than the one-band transmitter (the gain in efficiency ranging from 2 to 5 - fold). This applies to sound transmission. In the case of television, two-band transmission results in a slight gain in efficiency (as compared to AM-transmission). Two-band receivers: Undistorted signal-detection requires carrier reinsertion to an accuracy of a phase. This can be effected by two methods of synchronization. In this connection, a receiver circuit proposed by J.P. Costas (Ref. 1: PIRE, v. 44, no. 12, 1956) is analyzed, as well as several other circuits. The complexity of two-band and single-band receivers is compared. It is found that in this respect the relative merits and shortcomings cancel each other. Automatic gain control in two-band receivers is beset by difficulties. With respect to the signal-to-noise ratio, two-band reception is generally less effective than single-band

D407/D301

6.4400

AUTHORS: Model', Z.I. and Arzumanov, V.N., Members of the Society (see Association)

TITLE: Two-side-band radio communication without carrier frequency

PERIODICAL: Radiotekhnika, v. 17, no. 6, 1962, 42 - 53

TEXT: The design principles of two-side-band transmitters and receivers are considered. The merits and shortcomings of single-band communication are compared. Two-band transmitters: Three different design principles are possible: a) The carrier is suppressed in the low-power cascade, which is followed by the two-band amplification cascades. Such a transmitter differs little from a single-transmitter. The above design principle ensures small nonlinear distortions. b) All the high-frequency cascades, except the terminal one, operate in the unmodulated regime of class C; the two-band modulation is effected in the terminal cascade. Screed-grid or protective-grid modulation,

Card 1/3

MODEL', Zinoviy Iosifovich; KELLER, O.K., retsenzent; SHUMLYANSKIY, I.I., retsenzent; NOVIKOVA, Ye.S., red.; SHEFER, G.I., tekhn. red.

[Radio transmitters] Radioperedaiushchie ustroistva. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1961. 463 p. (MIRA 14:8)

(Radio—Transmitters and transmission)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

SOV/106-59-7-3/16

Bridge Methods of Combining the Powers of any Number of U.S.W. Generators and Transmitters

There are 11 figures and 5 Soviet references.

SUBMITTED: January 16, 1959

Card 6/6

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

Bridge Methods of Combining the Powers of any Number of U.S.W. Generators and Transmitters

generators, their powers and their wavelengths which can be handled and consequently development of multi-terminal circuits is not a complete answer to the problems of combining the powers of u.s.w. generators.

The shortcomings of multi-terminal bridge circuits can be overcome by using the chain principle. Different u.s.w. bridge circuits can be used: ring; Y-form; slotted waveguide, etc. (Ref 5).

For metric and decimetric waves, sections having the square bridge form (Figure 10) are most promising. A chain circuit using square bridge sections was checked experimentally for combining the outputs of five generators and there was very little mutual coupling over 20% of the frequency band. For waveguide bridge sections, the most promising are slotted bridges.

Bridge Methods of Combining the Powers of any Number of U.S.W. Generators and Transmitters

To overcome these disadvantages, an additional type of circuit consisting of a double square (Figure 6) was designed. This bridge is completely symmetrical relative to the load impedance, the ballast circuit was divided into two parts and each impedance was earthed. The different current paths between the inputs 1 and 2 are either equal or differ by $\lambda/2$, which gives the necessary phase relationships for balance. Taking this circuit as a starting point, a multi-terminal bridge can be constructed by combining squares (Ref 2). Such a bridge is analysed and its construction shown in Figures 7 and 8. Although the circuits examined are, theoretically, balanced at one frequency only, calculations of the frequency characteristics showed that the frequency band of the combined square type is approximately twice as wide as the band of the Y-form bridge.

Results obtained from an experimental model accorded well with the calculated results. The field of application of these circuits is, however, limited in the number of

operation it should be possible to switch out one or more of the generators, it is necessary to know what will be the losses in the balanced impedances in this case and also what the losses will be when the amplitude and phase of the generator voltages change. It is also of interest to know how the bridge device will operate when the load impedance changes relative to its nominal value. The authors analyse these problems for bridge circuits which combine the powers of N u.s.w. oscillators (or transmitters) with independent excitation. The Y-form multi-terminal bridge (Figures 4 and 5) was investigated experimentally at 70 cm wavelength. The outputs of three generators were combined and the load and input resistances were 75 Ω . Experience with the model revealed some disadvantages of this type of bridge: 1) The impossibility of earthing the ballast impedances complicated the screening.
2) Due to slots at the places where the ballast resistances were connected to the arms, some mutual coupling occurred between the generators.

Bridge Methods of Combining the Powers of any Number of U.S.W. Generators and Transmitters

circuits. A multi-terminal bridge circuit takes the form of a single symmetrical device with the number of inputs equal to the number of combined generators. Such a bridge, constructed with lumped constants, was described by Z.I. Model' and A.A. L'vovich (Ref 1). This bridge, which is a development of a "T" circuit, can be used for medium and short waves. The chain principle proposed by V.M. Katushkina is based on the use of bridges which enable unequal powers of two generators to be combined. The powers of two generators can be combined in one bridge section, in the following section, the combined power of the first two generators can be combined with the power of a third, and so on (Figure 2). Combinations of both principles are also possible.

In the design of any particular bridge circuit, its parameters must be chosen to meet the conditions for balance and to obtain a given input impedance. Since in

SOV/106-59-7-3/16

AUTHORS: Katushkina, V.M. and Model', Z.I.

TITLE: Bridge Methods of Combining the Powers of any Number of U.S.W. Generators and Transmitters

PERIODICAL: Elektrosvyaz', 1959, Nr 7, pp 17 - 25 (USSR)

ABSTRACT: In practice, it is sometimes necessary to combine the powers of several U.S.W. generators. For this purpose, a method in which the powers are combined in pairs, as shown in Figure 1, is described in the technical literature. This method enables the powers to be combined without loss in balanced impedances but only for $N = 2^n$ generators (where n is any whole number) and the number of the bridges will be N-1 . Apart from its awkwardness this method is not suitable for combining the powers of any arbitrary number of generators. It is therefore of interest to consider the problem of combining the powers of any given number of h.f. generators while preserving the advantages of the bridge method: absence of coupling between the generators and absence of losses in the balanced impedances. This problem can be solved in two ways: multi-terminal bridge circuits and chain bridge

Card1/6

MODEL', Z.I.; ARTYM, A.D.

Using countercoupling for suppression of cross distortion in multichannel high-frequency amplifiers of single-band transmitters. Trudy LPI no.194:3-13 '58. (MIRA 11:11)
(Radio, Shortwave--Transmitters and transmission)

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

Mo Det, 2, F.

AUTHOR: Stelyarov, A.G. SOV/142-58-4-29/30

TITLE: All-Union Session Marking "Radio Day" (Vsesoyuznaya nauchnaya sessiya, posvyashchennaya "Dnyu Radio")

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy - Radiotekhnika, 1958, Nr 4, pp 517-521 (USSR)

ABSTRACT: During the period May 15-17, 1958, an All-Union Scientific Session was held in Moscow, devoted to "Radio Day". It was organized by the Scientific Technical A.S.Popov Association for Radio-Engineering and Elektro-Communications. 240 papers were read at the session, 25 in the field of information theory and more than 20 in the field of electronics, dealing with theoretical/experimental research on electronic equipment. V.I.Siforov spoke on "The Transmission Capacity of Single-Ray and Multi-Ray Communication Canals". L.I.Filippov looked at the potential interference resistance of an ideal radio receiver. D.A.Rogik spoke on "The Transmission System of Electric Signals by the Optimal Code of Shannon-Fano." A.Ya.Gubarlinov and B.S.Fleyshman discussed "The Use of the Successive Analysis Method in Equipment for Determining Weak Signals in Noise", and L.M.Fink examined "The Potential Interference Resistance in a Non-Definite Signal Phase". V.A.Kashirin and G.A.Shumilina discussed "The Optimal Parameters of the Tele-measuring System with regard to Interference Resistance". B.S.Fleyshmann spoke on the question of creating an optimal code - in the Shannon conception - in the case of a binary symmetrical canal. L.F.Borodin discussed "The Method of Creating Several Codes with a Simple Base". In the field of electronics, P.A.Tarasov spoke on "Broad Band Electron Ray Tubes for Observation and Recording of Electric Impulses and Ultra-High Frequencies" and V.P.Radchenko examined the question of the practical utilization of tubes with a cathode net. G.P.Semenov, V.P.Sazonov, M.M.Shitneva and A.S.Bondarev examined: "Use of the Radiosonde with a High-Ohm Feed for Examining Electromagnetic fields in resonators and wave guides". [illegible] spoke on "The Selection of Oscillatory Energy of an Electronic Current, Modulated According to Density". M.B.Goldat discussed a negative clystron with a wide range of electron adjustment. S.I.Bychkov explained the phenomenon of electron displacement and gave an approximate description of the frequency characteristics of the magnetron under conditions of high amplitude oscillations. A.I.Yeremchenko spoke on "The Influence of Various Factors on a Critical Magnetic Magnetron Field with a Grid". [illegible] spoke on "Modern Television Stations" and V.N.Matushkina and [illegible] discussed "Bridge Methods of Combining the Outputs of Several Generators". G.Sh.Kavanishvili spoke on "The Theory of Non-Linear Oscillations in Radio Engineering". V.A.Khranov and G.L.Sorokin spoke on "The Electro-Magnetic Radiation in Systems Not Conditioned by the Theory of Reciprocity in the Ultra-High Frequency Range".

Card 1/7

Card 2/7

MODEL', Z. I.

V. M. Katushkina and Z. I. Model', "Bridge method of adding power of several generators." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep 58.

The bridge method of adding powers can be extended to the case of adding the powers of 2^n generators. In practice, however, addition of power of an arbitrary number of generators without loss is required. This problem can be solved by using symmetric multiterminal bridges and an iterated network method based on the principle of successive power build-up. Analysis shows that the energy indices of all bridge systems are identical for a change in the generator regions. It follows from an experimental investigation of multiterminal USW bridges that the most suitable variation is a bridge constructed by coupling square bridges.

Iterated network circuits gave positive results when completed in the USW band as square bridges and as slit waveguide bridges in the microwave band.

MODEL', Z. I.

Z. I. Model and N. S. Fuzik, "Equivalent circuit of a tube oscillator for various operating regions thereof." Scientific Session Devoted to "Radio Day", May 1958, Trudrezervizdat, Moscow, 9 Sep 58.

Use of methods to design tube oscillators based on a linear idealization of the static characteristics in the case of load varying in modulus and phase leads to very tedious computations. Hence, if the load is detuned, then the design appears to be inexact because of neglect of the voltages created by the higher harmonics in the load.

Consequently, the most convenient solution to the problem would be such as would be given a direct, although approximate, relation between the basic plate current components, at first glance, its fundamental harmonic and the effective plate load resistance. Consequently, an approximate equivalent circuit of a tube oscillator has been developed and basic relations therein have been obtained for various operating regions.

APPROVED FOR RELEASE: 06/23/11: CIA-RDP86-00513R001134900048-6

108-10-7/11

Anodic Self-Modulation in Short-Wave Emitters

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ABSTRACT: The characteristics of anodic self modulation in short-wave emitters serving for professional transmissions are given. The possibilities for the improvement of the modulation characteristic in valves with screened anode and in an amplification scheme with common grid are investigated. The author shows that the deep negative feedback has to be preferred in the selection of the compensation of non-linear distortions. The methods for the increase of the degree of efficiency are described and the characteristics of the calculation are shown. Based on the investigations carried out here as well as on the experimental results the use of anodic self modulation in short-wave transmitters already built according to the principle of grid-modulation as well as in those still to be designed can be regarded very useful. There are 11 figures and 10 Slavic references.

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NOLEL', Z.I.; KRAVIZHSKIY, Yu.B.; NOVOZHILOVA, N.K.

Theory of T network bridge circuits for combining the output of high-frequency oscillators. Trudy LPI no.181:92-103 '55.
(MLRA 10:1)

(Oscillators, Electron-tube)